



ARMY MEDICAL SERVICE GRADUATE SCHOOL

WALTER REED ARMY MEDICAL CENTER

WASHINGTON 12, D. C.

IN REPLY REFER TO
Bacteriology Department

9 December 1952

Dr. J. Lederberg
University of Wisconsin
Madison, Wisconsin.

Dear Dr. Lederberg,

Enclosed is a manuscript concerning the "copper bug". It was just sent off to the Journal of General Physiology a couple of days ago, but in the event that it may be of some use to you at this time and since any remarks of theirs are hardly necessary to you, I am sending it on to you now.

Because my duties here have expanded in several directions apart from research, and because my time and interest have settled primarily on the chemistry of the DNA of the organisms as well as on our new virus nucleotide, I have explored the genetics of the transformation very little.

We have taken cultures of K 12 and treated them as we did the B strain. By making the copper concentration four times as great it has been possible to get some small colony forms, but not with the control and regularity that we get with B. Furthermore with K 12 in tubes with greater concentrations of copper, although density remains the same or decreases, absorption at 260 goes up considerably higher than that normally seen. The matter of lysogenicity and copper arises and must be considered along with the observations on the small colony forms.

I should like very much to see this matter thoroughly investigated from a genetic point of view. If after a few pilot experiments you think worthwhile things can be done, would it be possible for me to spend a couple of weeks in your laboratory exploring along with your group. Trained in biochemistry and not in genetics I would of course leave the problem in your hands, but would appreciate the opportunity to gain at least a little more insight. I will await evaluation and word from you before I approach the Army about such a visit.

Sincerely yours

Lawrence L. Reed

P.S. I would appreciate your returning the manuscript when you are thru with it, along with any comments of course.